



# **Missouri Department of Natural Resources**

## **Water Quality Coordinating Committee Water Pollution Control Program**

### **Minutes**

**April 15, 2003**

## **WATER QUALITY COORDINATING COMMITTEE**

Columbia Environmental Research Center  
4200 New Haven Road  
Columbia, Missouri

April 15, 2003  
10:00 a.m.

### **MEETING AGENDA**

Atrazine IRED Update

Rex Martin & Dr. Dennis Tierney, Syngenta Crop Protection

White River Basin Comprehensive Study

Keith Admire, U.S. Army Corps of Engineers, Memphis District

Outside the Kingdom of Bacteria, Archaea & Bioaugmentation

*(Bioaugmentation in Moberly's waste water management.)*

Eddie Sechrest, Archaea Solutions, Inc.

Other

EPA Watershed Rule

Agency Activities

Meetings & Conferences

# MISSOURI WATER QUALITY COORDINATING COMMITTEE

April 15, 2003

Columbia Environmental Research Center  
4200 New Haven Road  
Columbia, Missouri

## MINUTES

### Attendees:

Becky Shannon	DNR/WPSCD/WPCP	Bob Steiert	EPA Region VII
Terry Frueh	DNR/GSRAD/WRP	Carol Garey	DNR/WPSCD/WPCP
Neil Babik	Mark Twain National Forest	Verel Benson	UMC - FAPRI
Charles Ikenberry	Carolla Engineers	Eddie Sechrest	Light Environmental
Samuel Darkwah	Carolla Engineers	Roger Korenberg	DNR/OAC/EAO
Charles Putnam	Ozark National Scenic Riverways	Rex Martin	Syngenta Crop Protection
Cindy DiStefano	MDC	Gene Gardner	MDC – Policy Coordination
Bob Ball	USDA, NRCS	Wendi Rogers	UMC – FAPRI
Keith Admire	NRCS Liaison w/Memphis COE	Priscilla Stotts	DNR/WPSCD/WPCP
Mike Wells	DNR/GSRAD/WRP	Gail Wilson	DNR/WPSCD/WPCP
Don Yoest	MO Dept of Agriculture	Donna Menown	DNR/WPSCD/WPCP
Jack Dutra	JD Information Services	Sharon Clifford	DNR/WPSCD/WPCP
Ken Struempf	DNR/WPSCD/SWCP	Trent Stober	MEC Water Resources
Dennis Tierney	Syngenta Crop Protection, Inc.	Anne Peery	DNR/WPSCD/WPCP
Mary West	City of Moberly	Steve Taylor	MO Corn Growers Assoc.
Mark Osborn	DNR/WPSCD/WPCP	Terry Timmons	DNR/WPSCD/PDWP
		Darlene Schaben	DNR/WPSCD/WPCP

Introductions were made.

### **Atrazine IRED Update**, Rex Martin, Syngenta Crop Protection

(PowerPoint Presentation)

Rex said that Syngenta has been the leading manufacturer of Atrazine. The final MOA has not yet been signed. Special review of atrazine began in November 1994 to examine risks vs. benefit. Approx. 80,000 comments were received. EPA was required by a consent decree to issue an IRED (Interim Re-registration Eligibility Decision) for atrazine by January 31, 2003. Rex said it was their hope that key issues will be resolved with this special review. Syngenta reached an agreement with EPA to continue their stewardship efforts & increase monitoring in watershed areas where atrazine is used most. Mitigation will need to be done at 8 sites throughout the nation that have problems with atrazine detections. EPA will complete work on ecological risk by October 2003. There are new health-based triggers established for the IRED. These triggers are different from the SDWA MCL but are part of the MOA and what manufacturers are to meet. They will have baseline monitoring in surface water only. Manufacturers are looking at TCT (total chloro-triazines) and 2.6 ppb will be used as the annual average in finished water. There are two tiers of monitoring: intensive monitoring and management plan. If atrazine is detected at 37.5 ppb then the watershed would enter Tier 2 monitoring. That would be a 90-day rolling average in raw water. There are eight watersheds targeted for the development of an atrazine management plan. In Missouri that includes Bucklin and Dearborn. Others are in Louisiana, Iowa, Illinois, Kentucky and Indiana. The use of Atrazine would be prohibited in a watershed that would exceed 37.5 ppb. TCT during a 90-day rolling average or over 3 ppb., on an annual average, in drinking water. Watershed mitigation plans must be developed for the eight watersheds and submitted to EPA by August 1, 2003. Stakeholders will be involved. There will be a web site and phone number available for anyone to find out if

they are in an atrazine prohibition area. Syngenta will conduct and develop a monitoring program for rural water wells. Negotiations are on-going with EPA. It is imperative that any atrazine products have the same label.

Dennis Tierney then discussed MOA monitoring requirements and how they affect Missouri water systems. EPA determined that atrazine uses must be amended. Discussions are being held with the other registrants and their attorneys, Department of Justice and EPA regarding whether they will sign the MOA. Simazine special review will continue for another 18 months. There will be another IRED in October. A requirement of the MOA is to review all historical SDWA atrazine data in 32 states previously monitored plus all community water systems from all 50 states from 1997-2002 and calculate TCT concentrations from the data on an annual average. Dennis went over some of the obligations for registrants under the MOA. There are four screening criteria for participation under the MOA. 1) Include the 8 community water systems identified in the MOA; 2) The community water systems with an annual average of TCT greater than or equal to 2.6 ppb in one or more years; 3) community water systems identified from 2002 atrazine management plan; and 4) the community water systems with a SDWA NOV from 2002/2003 SDWA database. There are 19 water systems in Missouri that are invited to participate in the program. Quarterly progress reports are to be submitted to EPA. Atrazine use in a watershed area is prohibited if a system over a 90-day rolling average is greater than or equal to 37.5 ppb in two separate years within a five-year period after January 1, 2004. Dennis explained the steps taken should there be an exceedence and how a system can drop out of the monitoring program. He showed a summary from the IRED for the lowest drinking water level of concern values for atrazine. The purpose of putting systems in the more comprehensive monitoring program is to better characterize the exposure and use the triggers of 37.5 ppb. The IRED and other related documents are on the web. Contact Rex or Dennis if you have any questions.

**White River Basin Comprehensive Study, Keith Admire, NRCS Liaison to U.S. Army Corps of Engineers, Memphis District**

Keith is an NRCS employee and national liaison with the Memphis Corps of Engineers (COE). He has held this position since August 2002. The National COE sent an employee to the National NRCS management center in Little Rock, Arkansas. Keith gave an overview of the White River Basin Comprehensive study being conducted by Memphis COE; liaison position goals and how it relates to water quality issues. White River Basin Comprehensive Study objectives were similar to some things that NRCS was doing in Missouri. The purpose of the study is to determine if there is a federal interest in providing solutions to the full spectrum of water resources related problems and opportunities in the White River Basin such as ecosystem restoration, navigation, flood damage reduction, agricultural and municipal water supply, wastewater treatment, aquifer protection, water quality improvements, water fowl management and aquatic and wildlife habitat restoration. It is a broad study and leads to specific authorization to address things found once the study is completed. It is a cost-share study. Sponsors include MoDNR, MDC, and 3 agencies from Arkansas, including the Arkansas Game & Fish and Arkansas Soil & Water Commission. The basic problems of the upper reach in Missouri are rapid growth and nutrients that go into the water, rivers and lakes in the Ozark region. In the lower basin, problems include water quantity issues, navigation, agricultural water use and environmental and habitat issues with water levels. Products of the study include a conceptual model of the inter-relationship between all resource concerns in the basin and detail water quality models of Lake Taneycomo, Beaver Lake and Table Rock Lake. There will be six 8-digit watersheds identified where the most concern is to develop watershed restoration plans. NRCS will be a major player in developing restoration plans and identifying treatments for restoration. Authorities include sections 206 and 208 of SDWA, which relate to environmental restoration, as well as other new authorities. The project manager is Tim Flinn, Memphis COE, and can be reached at (901) 544-3480. The three areas of emphasis include aging watershed infrastructure, watershed planning, and water quality issues. The COE is taking a watershed approach to the problems and issues. Through watershed planning, a pilot watershed will be identified for the COE & NRCS to work on collaboratively to address growth. Keith is on a workgroup for the strategic plan in the Memphis District to address issues on a watershed basis. The COE's Environmental Operating Principles states that the COE will look at impacts of their issues within the watershed and environmental issues. Missouri contacts include Mike Wells and Peter Goode, MoDNR, and Gene Gardner, MDC. Mike said there are other studies going on in regard to water use in Missouri that need to have water

quality looked at. Gene said that MDC approved \$190,000 to contribute for the study, which is to be spent in the upper river basin but with strings attached. \$100,000 is to be spent in the Table Rock Lake and Bull Shoals Lake for a recreational use study.

**Outside the Kingdom of Bacteria, Archaea & Bioaugmentation** (*Bioaugmentation in Moberly's wastewater management.*) Eddie Sechrest, Archaea Solutions, Inc.

Handouts: Reduced Sludge Production; Water & Sludge Management

Archaea is a microorganism that is outside the kingdom of bacteria. There are over 2700 different species. Archaea was discovered at the University of Illinois in 1977. Archaea can be found in the geysers in Yellowstone and can live in extreme temperatures and conditions. Eddie works for Light Environmental representing Archaea Solutions, Inc. Archaea Solutions specializes in alternate needs of wastewater treatment. (Alternate means methods outside the typical needs of the wastewater industry.) Archaea is a type of technology that is going to enhance treatment technology. This includes nutrients that get into wastewater and phosphorus that gets into drinking water. Eddie said Archaea is in about 35% of the earth's biomass. Archaea has been concentrated and put onto a substrate that can be administered to a body of water that has problems. It will address several issues that revolve around the food source for Archaea. Food sources include the waste by-products that are generated from the anaerobes and aerobes in the naturally occurring bacteria for wastewater conditions. Archaea is used to clean up the environment, which enhances the ability for the bacteria to work. So, wastewater treatment plants can then do a better job to reduce the amount of organic sludge generated in the naturally occurring wastewater treatment process. At Moberly, by using Archaea treatment they reduced the liability of land application of sludge, reduced labor involved, reduced financial responsibility and accountability, because Archaea is done in-place. This can be spread over a period of time to spread out the capital expense. Not only can Archaea handle existing sludge from the lagoon, application can be differentiated to also handle incoming sludge, depending on flow. Archaea can also be used in wastewater treatment plants and industrial plants. For every different facility there is a different application. Archaea is one of the few microorganisms that can reduce BOD and COD to practically nothing. Eddie explained how Archaea is packaged so it is easy to use. Eddie can be contacted at (816) 537-9190 if you have any questions.

It has been used in Moberly since October. There has been a 20% reduction of sludge in the first 30 days in one of the CSO/SSO lagoons. There is a preliminary case study available. They are hoping this summer that this will reduce algae growth to eliminate odors. Eddie said that Archaea does not address heavy metals yet but there are other products that will.

## **Other**

**EPA Watershed Rule**, Becky Shannon - Formerly know as the TMDL Rule, the Watershed Rule has not yet been released. We thought there might have been some word on it. There may be a conference call scheduled next week. Bob Steiert had no new information.

**Jacks Fork River TMDL Public Meeting**, Sharon Clifford – A public meeting was held in Eminence on April 10. Charles Putnam, Ozark National Scenic Riverways, attended the meeting and thought it went well. Approximately 120 were in attendance. Jerri Davis presented the findings of the USGS study and Sharon presented the TMDL process. Alice Geller, DNR, facilitated the meeting. They were recruiting for a watershed partnership. Those in attendance asked DNR to hold another meeting so local groups can voice their opinions.

Becky mentioned there will be an Elk River TMDL public meeting on April 22, which is being organized by the department's Southwest Regional Office.

## **Agency Activities**

Bob Ball – Water Quality Short Course is being held today. 38 people were registered. This is the 6<sup>th</sup> or 7<sup>th</sup> year of the course.

Mike Wells asked if there would be an announcement of the awards for Watershed Initiative projects on Earth Day. Bob Steiert said this information is correct. Mike thought the White River Basin proposal was submitted.

Mary West said she will be attending a CSO Partnership conference in New Hampshire on May 1-2.

Bob Steiert mentioned that Homeland Security is on an enhanced security level.

Priscilla Stotts announced that Stream Team Workshops have really been overbooked this year. They are holding a second workshop in Kansas City on May 21. There will be another workshop in St. Charles County on June 6. Call Priscilla for information.

Gail Wilson mentioned that the revised Davis Creek TMDL is on Public Notice. The revision was necessary because of new information. It is on the DNR web page.

Anne Peery had available the brochure for the Missouri River Natural Resources Conference that will be held June 1-4, Atchison, Kansas. It is the only annual basin-wide conference dedicated to understanding the health of the Missouri River. Sharon said there are several water quality related topics on the agenda.

Becky Shannon – Please let us know if you have ideas or suggestions for agenda topics.

### **Meetings & Conferences**

Sept. 12-13 Missouri River Relief, Kansas City